

Claims:

1. A method of locating position of a mobile receiver, comprising:
 - determining sets of satellite measurements with respect to a plurality of satellites over a period of time;
 - detecting whether said mobile receiver is in a stationary condition over said period of time; and
 - computing a position of said mobile receiver using said sets of satellite measurements in response to detection of said stationary condition.
2. The method of claim 1, wherein said detecting step comprises:
 - monitoring information received from a wireless communication network at said mobile receiver over said period of time.
3. The method of claim 2, wherein said information comprises a plurality of timing advance values obtained at a respective plurality of times.
4. The method of claim 3, wherein said monitoring step comprises:
 - computing a difference between a maximum of said plurality of timing advance values and a minimum of said plurality of timing advance values;;
 - where said stationary condition is detected in response to said difference being within a threshold of zero.
5. The method of claim 1, wherein said computing step is performed at said mobile receiver.
6. The method of claim 1, further comprising:
 - transmitting said sets of satellite measurements and data indicative of said detection of said stationary condition to a server in wireless communication with said mobile receiver;
 - wherein said computing step is performed at said server.
7. The method of claim 1, wherein said computing step comprises:

processing each of said sets of satellite measurements using a navigation model to generate a plurality of results; and
statistically processing said plurality of results to determine said position.

8. The method of claim 7, wherein said plurality of results are averaged to determine said position.

9. The method of claim 1, wherein said computing step comprises:
applying each of said sets of satellite measurements to said sequential estimation filter to generate said position.

10. The method of claim 9, wherein said computing step further comprises:
configuring said sequential estimation filter with a decreased state driving noise with respect to a nominal value.

11. The method of claim 10, wherein said sequential estimation filter is a Kalman filter.

12. The method of claim 1, wherein said detecting step comprises:
monitoring information generated by a motion measurement device over said period of time.

13. Apparatus for locating position of a mobile receiver, comprising:
a satellite signal receiver for determining satellite measurements with respect to a plurality of satellites;
a means for detecting motion of said mobile receiver; and
a processor for monitoring information generated by said detecting means to determine whether said mobile receiver is in a stationary condition, and computing a position of said mobile receiver using sets of said satellite measurements determined over said period of time in response to detection of said stationary condition.

14. The apparatus of claim 13, wherein said means for detecting comprises a wireless transceiver configured to receive a wireless signal from a wireless communication network.

15. The apparatus of claim 14, wherein said information comprises a plurality of timing advance values obtained at a respective plurality of times.

16. The apparatus of claim 13, wherein said processor is configured to process each of said sets of satellite measurements using a navigation model to generate a plurality of results, and statistically process said plurality of results to determine said position.

17. The apparatus of claim 13 further comprising:
a sequential estimation filter;
wherein said processor is configured to compute said position by applying each of said sets of satellite measurements to said sequential estimation filter.

18. The apparatus of claim 17, wherein said sequential estimation filter is a Kalman filter.

19. The apparatus of claim 13, wherein said means for detecting comprises a motion measurement device.

20. A position location system, comprising:
a mobile receiver having a satellite signal receiver for determining satellite measurements with respect to a plurality of satellites and a wireless transceiver; and
a server in wireless communication with said wireless transceiver;
where said mobile receiver is configured to monitor information derived from a wireless signal received using said wireless transceiver over a period of time to detect whether said mobile receiver is in a stationary condition;

where said mobile receiver is further configured to transmit sets of said satellite measurements determined over said period of time and data indicative of said detection of said stationary condition to said server; and

where said server is configured to compute a position of said mobile receiver using said sets of satellite measurements in response to said data.

21. The position location system of claim 20, wherein said information comprises a plurality of timing advance values obtained at a respective plurality of times.

22. The position location system of claim 20, wherein the server includes a sequential estimation filter, said server being configured to apply said sets of satellite measurements to said sequential estimation filter.

23. The position location system of claim 22, wherein said sequential estimation filter is a Kalman filter.

24. The position location system of claim 20, wherein said server is configured to process each of said sets of satellite measurements using a navigation model to generate a plurality of results, and statistically process said plurality of results to determine said position.